

## REMARKS

### Introduction

In response to the Office Action dated June 21, 2007, Applicants have amended claims 1-5 and 7-11. Claim 6 has been cancelled. Claims 12-14 have been added. Support for amended claim 1 is found in, for example, Fig. 1 and pg. 31, lines 19-35. Claims 2 and 3 were amended to provide explicit support for “said adhesive layer” and “at least one tape layer,” respectively. Support for amended claim 4 is found, for example, in Fig. 5 and pg. 34, line 22-pg. 36, line 6. Support for amended claim 5 is found in, for example, originally filed claim 6. Support for amended claim 7 is found in, for example, Fig. 1 and pg. 31, lines 19-35. Support for amended claim 8 is found in, for example, pg. 62, line 18-pg. 64, line 1. Claims 9-11 were amended to remove their multi-dependency. Support for new claims 12-14 is found in, for example, originally filed claims 9-11. Care has been taken to avoid the introduction of new matter. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

### Claim Rejections Under 35 U.S.C. § 102

Claims 1, 2, and 4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by JP 63-200109 (hereinafter Hosoya). Amended claim 1 recites, in part, “...an adhesive layer provided on said optical fiber cores; and at least one tape layer for integrating said plurality of optical fiber cores into one body, wherein said **at least one tape layer has a tensile strength higher than an adhesive force of said at least one tape layer to said plurality of optical fiber cores.**”

The Office Action asserts that Hosoya discloses a ribbon-like optical fiber core assembly including a plurality of optical fiber cores 1 arranged planarly, at least one tape layer (2, 3) for integrating the optical fiber cores into one body, where the tape layer has a tensile strength higher than an adhesive force of the tape layer to the optical fiber cores.

Turning to the prior art, Hosoya discusses weakening the adhesive strength between the tape layers (abstract). Hosoya states in the Constitution of the Abstract,

A common coating layer consists of two common coating [layers] constituting parts 2 and 3 which are closely brought into contact with each other with plural optical fiber strands 1, which are arranged in parallel, ***between them [2, 3] without being adhered to optical fiber strands 1*** (emphasis added).

Contrary to the Examiner's assertion, the optical fiber cores 1 do not have an adhesive layer provided on them. Figs. 1-6 of Hosoya show the top tape layer 2 interlocking with the optical fiber cores 1 and the bottom tape layer 3. An adhesive layer is not present in Hosoya. Further, Hosoya discusses that the tape layers do not adhere to the optical fiber cores. Thus, a comparison of the tensile strength of the tape layer to the adhesive force between the tape layer to the optical fiber cores is not viable. Hosoya fails to disclose or suggest, at a minimum, **"...an adhesive layer provided on said optical fiber cores; and at least one tape layer for integrating said plurality of optical fiber cores into one body, wherein said at least one tape layer has a tensile strength higher than an adhesive force of said at least one tape layer to said plurality of optical fiber cores,"** as recited in amended claim 1.

The Office Action also alleges that Hosoya discloses the method of separating a ribbon-like optical fiber core assembly according to claim 1 into single cores by peeling at least one portion of the tape layer, and applying a pulling force on the tape layer in a direction of detachment from the optical fiber cores to peel the tape layer up to a predetermined portion.

Turning to the prior art, Hosoya shows in Fig. 6 the film base 2 of the optical fiber core assembly being pulled up, while the lower tape layer 3 is pulled down. Hosoya bends tape layers (2, 3), not the optical fiber cores.

According to the claimed subject matter per amended claim 4, the optical fiber core assembly is bent, which breaks the optical fiber cores at a predetermined breaking position. Thereby as taught in the instant specification, the tape layer located on the first surface side and the adhesive layer is kept non-broken (*see, e.g.*, pg. 35, lines 1-9). However, Hosoya does not disclose or suggest this, and apparently is unaware of the unexpected improvement in the optical fiber core assembly, which can be separated into single cores efficiently without the use of any special jig.

Thus, Hosoya fails to disclose or suggest, "...bending said optical fiber core assembly to break said plurality of optical fiber cores at a predetermined breaking position; and applying a pulling force on said at least one tape layer in a direction of detachment from said plurality of optical fiber cores to thereby peel said at least one tape layer up to a predetermined position," as recited in amended claim 4.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities," *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that Hosoya does not anticipate amended claims 1 and 4, nor any claim dependent thereon. The dependent claims are allowable for at least the same reasons as claims 1 and 4.

Claims 5 and 6 stand rejected under 35 U.S.C. § 102(b) as anticipated by JP 09-080279 (hereinafter Okunishi). The Office Action asserts that Okunishi discloses a film for a tape core assembly including a flexible film (2 or 3) that is capable of integrating a plurality of optical fibers as a tape and position limiting portions formed so that the positions of the plurality of optical fibers is capable to be limited. The Office Action also asserts that the position limiting portions are formed so that a pitch of arrangement at one end portion of the film is different from the pitch of arrangement at the other end portion.

Okunishi states that the perforated line-like cut-off lines 5 and 5' are formed parallel to the optical fibers (*see*, Abstract and Fig. 1). Thus, Okunishi fails to disclose or suggest, "...wherein a pitch of arrangement of said plurality of position limiting portions at one end portion of said flexible film is different from a pitch of arrangement of said plurality of position limiting portions at the other end portion of said flexible film," as recited in amended claim 5.

Claims 7-9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,295,400 (Shahid). As a preliminary matter, amended claim 7 depends on independent claim 1. Shahid discusses a optical fiber core assembly 30 having a plurality of optical fiber cores 36 arranged planarly, at least one tape layer 46, and an adhesive layer 48, where the plurality of optical fiber cores 36 are disposed so that gaps are formed between the adjacent optical fiber cores. Shahid is *silent* regarding the tensile strength of the tape layer and the adhesive force of the tape layer to the optical fiber cores. As stated above, Hosoya does not teach an adhesive layer.

Neither Shahid nor Hosoya, individually or combined, at a minimum, discloses or suggests, "...wherein **said at least one tape layer has a tensile strength higher than an**

**adhesive force of said at least one tape layer to said plurality of optical fiber cores,”** as recited in amended claim 1.

Amended claim 8 recites, in part, “...covering said arranged optical fiber cores with at least one film base after **compression bonding** said arranged optical fiber cores to one another by an adhesive layer so that said adhesive layer is interposed between said arranged optical fiber cores.”

The Office Action also asserts that Shahid discloses covering the arranged optical fiber cores with at least one film base after bonding the arranged optical fiber cores to one another by an adhesive layer so that the adhesive layer is interposed between the arranged optical fiber cores.

Shahid describes applying adhesive to the exposed array of optical fibers and applying tape to the combination of the adhesive and the exposed array of optical fibers (col. 6, line 67-col. 7, line 1). Shahid describes applying the adhesive by spraying or coating (col. 7, lines -3).

According to the subject matter of amended claim 8, the arranged optical fiber cores are compression bonded to one another by an adhesive layer so that the adhesive layer is interposed between the arranged optical fiber cores (*see, e.g.,* pg. 62, line 18-pg. 64, line 1, *emphasis added on pg. 63, line 17-pg. 64, line 1*). However, Shahid does not disclose or suggest this, and apparently is unaware of the unexpected improvement in adhesive force of the film base to the optical fiber cores.

Shahid fails to disclose or suggest, “...covering said arranged optical fiber cores with at least one film base after **compression bonding** said arranged optical fiber cores to one another by an adhesive layer so that said adhesive layer is interposed between said arranged optical fiber cores,” as recited in amended claim 8.

**Claim Rejections Under 35 U.S.C. § 103**

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hosoya, and further in view of U.S. Patent No. 5,253,318 (hereinafter Sayegh). Claim 3 depends from claim 1 and includes all of the features of that claim plus additional features, which are not taught or suggested by the cited references. Therefore, for at least these reasons, it is respectfully submitted that claim 3 also patentably distinguishes over the cited references.

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shahid. Claims 10 and 11 depend from claim 1 and include all of the features of that claim plus additional features, which are not taught or suggested by the cited reference. Therefore, for at least these reasons, it is respectfully submitted that claims 10 and 11 also patentably distinguish over the cited reference.

**New Claims**

New claim 12 recites, "...a ribbon-like optical fiber core assembly formed by a method according to Claim 8, and a multi-core connector connected with said ribbon-like optical fiber core assembly." Nothing in the cited reference teaches or suggests the described subject matter. Additionally, claims 13 and 14 recite patentably distinguishing features of their own. It is submitted that these new claims distinguish over the cited references.

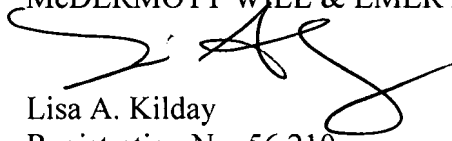
**Conclusion**

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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